

ABSTRACT OF THE DISCLOSURE

A wireless communication system of a simple configuration enabled to perform both data communication and accurate ranging. In the system, a second wireless unit receives a ranging signal after a lapse of a propagation time since a first wireless unit transmits the ranging signal. Then, after a delay of an image elimination period, the second wireless unit transmits a response signal. The first wireless unit receives the response signal after a lapse of a propagation time. Then, the first wireless unit obtains the propagation time, during which the signal propagates between the first and second wireless unit, according to an elapsed time since the ranging signal is transmitted. The distance therebetween is obtained by dividing the obtained propagation time by the velocity of light. Before the image elimination period elapses, in order to eliminate the physical reflection of radio waves, the first wireless unit is inhibited from opening a reception gate.